U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND – AVIATION & MISSILE CENTER

Overview Brief

APPROVED FOR PUBLIC RELEASE

MISSION

Deliver collaborative and innovative aviation and missile capabilities for responsive and cost-effective research, development and life cycle engineering solutions.

BY THE NUMBERS

~9,553 FY18 Strength

2,943 Civilian

23 Military

6,587 Contractor

FY18 Funding

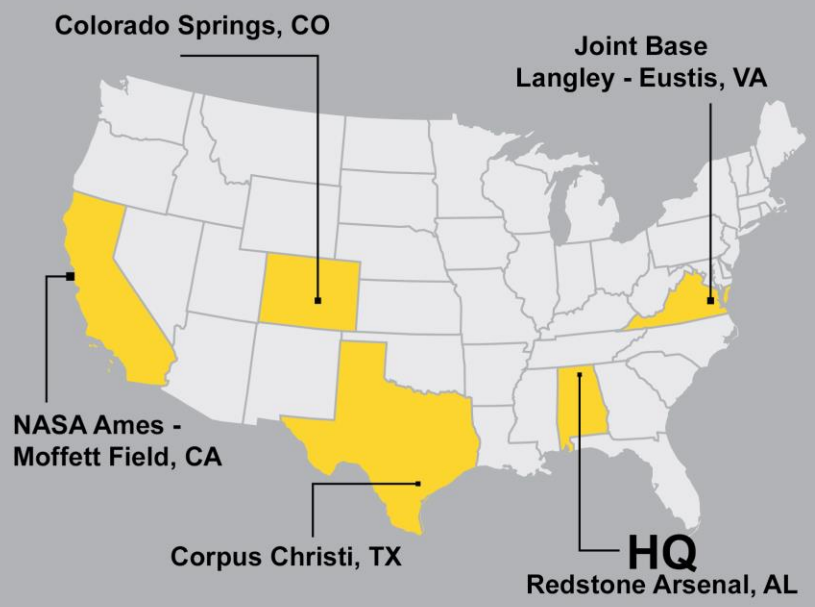
$3.4B

7% Aviation S&T

8% Missile S&T

58% Army

27% Other



Core Competencies

- Life Cycle Engineering
- Research, Technology Development and Demonstration
- Design and Modification
- Software Engineering
- Systems Integration
- Test and Evaluation
- Qualification
- Aerodynamics/ Aeromechanics
- Structures
- Propulsion
- Guidance/Navigation
- Autonomy and Teaming
- Radio Frequency (RF) Technology
- Fire Control Radar Technology
- Image Processing
- Models and Simulation
- Cyber Security

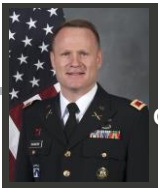
LEADERSHIP

Director

Dr. Juanita Christensen (SES)

Chief of Staff

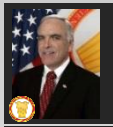
Mr. Steve Fisher



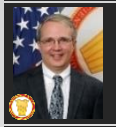
MILDEP

COL Eric Rannow

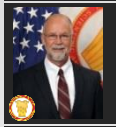
Scientific & Technical Positions (STs)



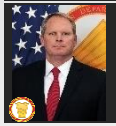
Group Leader / Flight Control Technology
Dr. Mark Tischler



Optical Sciences
Dr. Henry Everitt



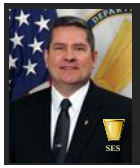
Aviation Advanced Design
Dr. D. J. Taylor



Radio Frequency Sensors
Dr. Brian Smith

Aviation Development

Dr. Bill Lewis (SES)

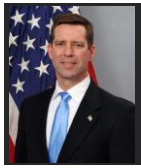


Aviation Engineering

Mr. Keith Darrow (SES)

Weapons Development & Integration

Mr. Barry Pike (SES)



Engineering

Mr. Stan Sherrod (Acting)

System Simulation, Software, & Integration
Ms. Marcia Holmes (Acting)

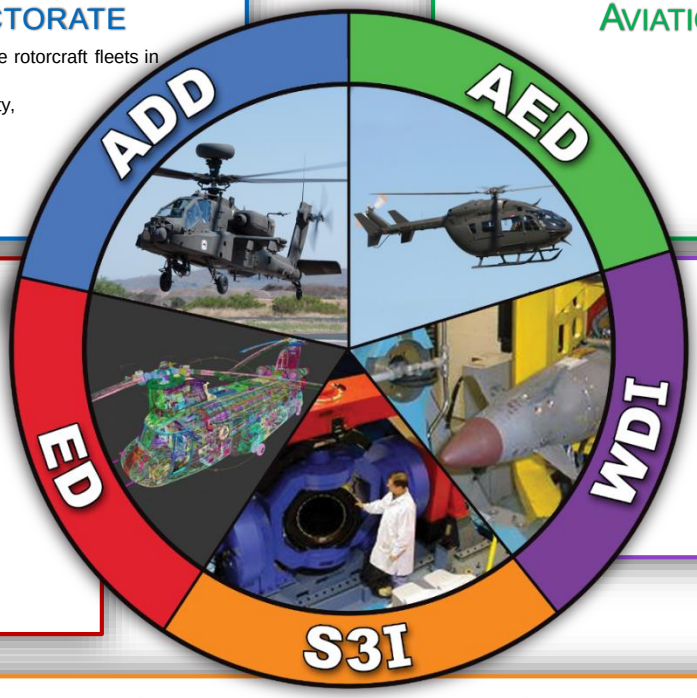
DIRECTORATES

Aviation Development Directorate

- Aviation S&T supports both the current helicopter and future rotorcraft fleets in improving survivability, performance, and affordability
- Current efforts are focused on platforms, power, survivability, vehicle management, and operations support and sustainment
- Future efforts are focused on Future Vertical Lift (FVL)
- Joint Multi-Role (JMR) Technology Demonstrator (TD)
- Focus on Transition to PEO Aviation

Aviation Engineering Directorate

- Delegated Airworthiness (AW) Authority
- Systems Engineering
- Aeromechanics
- Propulsion
- Structures and Materials
- Mission Equipment
- Maintenance/Sustainment Engineering
- Foreign Military AW Authority Recognitions



Engineering Directorate

- Systems Engineering
- Test and Evaluation
- Production Engineering
- Product Assurance
- Configuration Management
- Prototype Integration Facility / Rapid Response
- Logistics Engineering
- Industrial Base Assurance
- Life Cycle Cost Reduction
- Manufacturing Technology
- Reliability and Maintainability Engineering
- Quality Engineering
- Quality Management

Weapons Development & Integration Directorate

- Life Cycle Management for DoD missile technology
- Conducts research, exploratory and advanced development, technology demonstration and provide engineering and scientific expertise in all aspects of weapon system design, development, improvement and integration for the Army
- Lead Army agent in the execution of the Missile Science and Technology Enterprise

Systems Simulation, Software, & Integration Directorate

- Hardware-In-the-Loop (HWIL) Models and Simulations for Aviation and Missile Systems
- Conduct Performance and Effectiveness Evaluations for Aviation and Missile Systems
- Design and Develop Virtual Prototyping Facilities for User Evaluations of Aviation and Missile Applications
- Define and Develop Modeling and Simulation Methods and Technologies for DoD Applications
- Computer Hardware/Software Technology
- Independent Verification and Validation (IV&V)
- Aviation Flight Safety/Airworthiness Software Assessments
- Software Development and Sustainment
- Information Assurance/Cyber Security
- Interoperability Engineering and Test (IET)
- Software Fielding/New Equipment Training
- Configuration and Data Management
- Software Quality Engineering

PRIORITIES

#1: Readiness

Provide aviation and missile systems solutions to ensure victory on the battlefield today.

#2: Future Force

Develop and mature Science and Technology to provide technical capability to our Army's (and nation's) aviation and missile systems.

#3: Soldiers and People

Develop the engineering talent to support both Science and Technology and the aviation and missile materiel enterprise

ARMY MODERNIZATION PRIORITIES/ CROSS FUNCTIONAL TEAMS

#1: Long Range Precision Fires

#2: Next Gen Combat Vehicles (NGCV)

#3: Future Vertical Lift (FVL)

#4: Network/C31

#5: Air & Missile Defense

#6: Soldier Lethality

Sustain & Train – Crosscutting (PNT, STE)

The U.S. Army Modernization Strategy has one focus: to make Soldiers and units more lethal to deploy, fight, and win our Nation's wars.

TOP AVIATION S&T INITIATIVES

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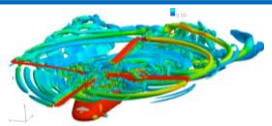
PLATFORMS

- Structures
- Sustainment
- Concept Design & Assessment



MAJOR PROGRAM AREAS

- Joint Multi-Role Technology Demonstration
- Degraded Visual Environment – Mitigation
- Next Generation Tactical UAS Technology Demonstration

MISSION SYSTEMS

- Survivability
- Avionics & Networks

POWER

- Engines & Other Power Sources
- Drives

VEHICLE MANAGEMENT & CONTROL AND ROTORS

- Rotors
- Vehicle Management & Control

AUTONOMOUS AND UNMANNED SYSTEMS

BASIC RESEARCH

- Computational Aeromechanics
- Experimental Aeromechanics

MISSILE S&T ALIGNMENT TO ARMY MODERNIZATION PRIORITIES

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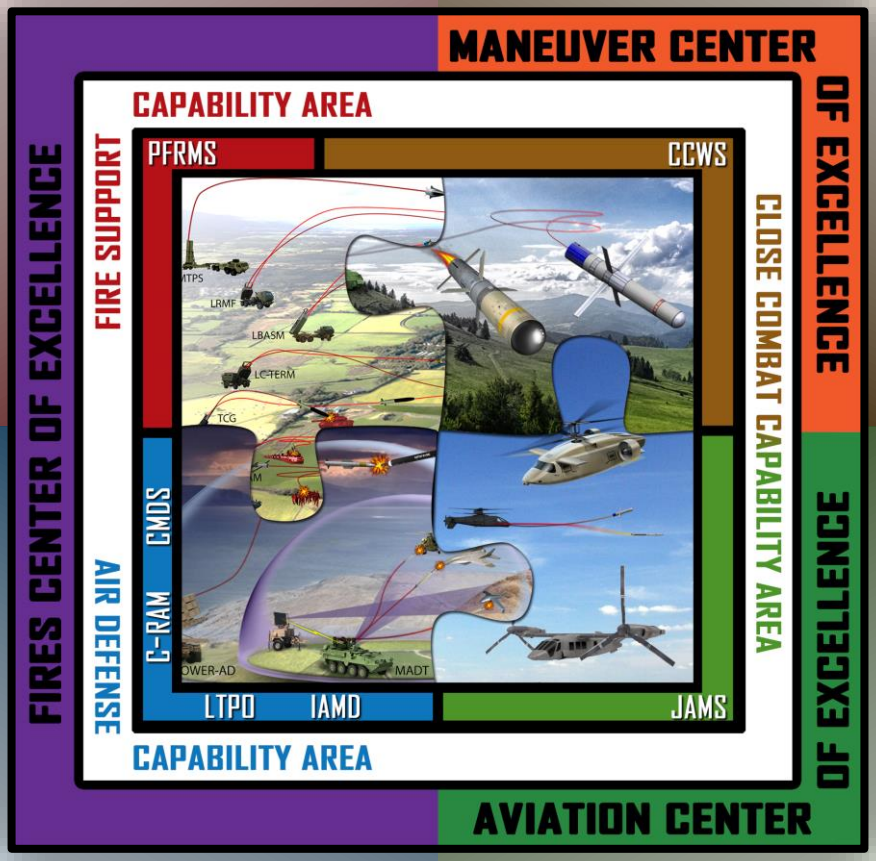
Army Modernization Priorities

Long Range Precision Fires

Technologies for the development, integration and delivery of long range fires at the tactical, operational, and strategic echelons to restore overmatch, improve deterrence, and disrupt A2AD on a complex, contested and expanded battlefield.

Air & Missile Defense

Technologies for the development of mobile air defense systems that reduce the cost curve of missile defense, restore overmatch, survive volley-fire attacks, and operate within sophisticated A2AD and contested domains.



Next Generation Combat Vehicle

Technologies for active protection systems and enhanced lethal effects that will increase our ability to survive and win in the complex and densely urbanized terrain of an intensely lethal and distributed battlefield where all domains are continually contested.

Future Vertical Lift

Technologies for the development, integration, and delivery of aviation launched air-to-ground and air-to-air missile systems to restore overmatch within sophisticated A2AD and contested domains.

Engage First **Expand the Dome** **On the Move**

MISSILE S&T ALIGNED TO ARMY PRIORITIES

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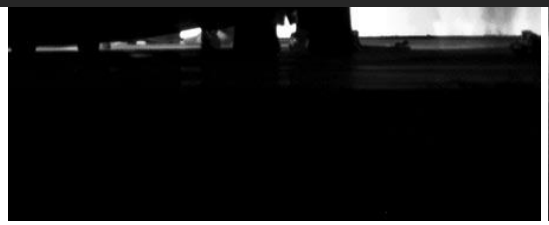
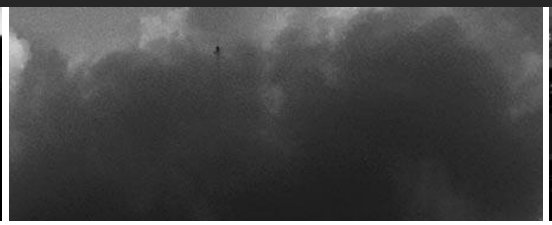
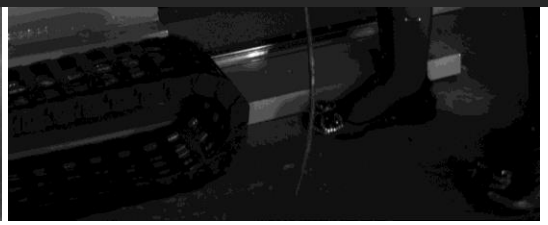
"You can only deter your opponent if your opponent believes that you have the will and the capability…readiness has a deterrent value, as well as a war-fighting value."

Gen. Mark A. Milley, Chief of Staff of the Army







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